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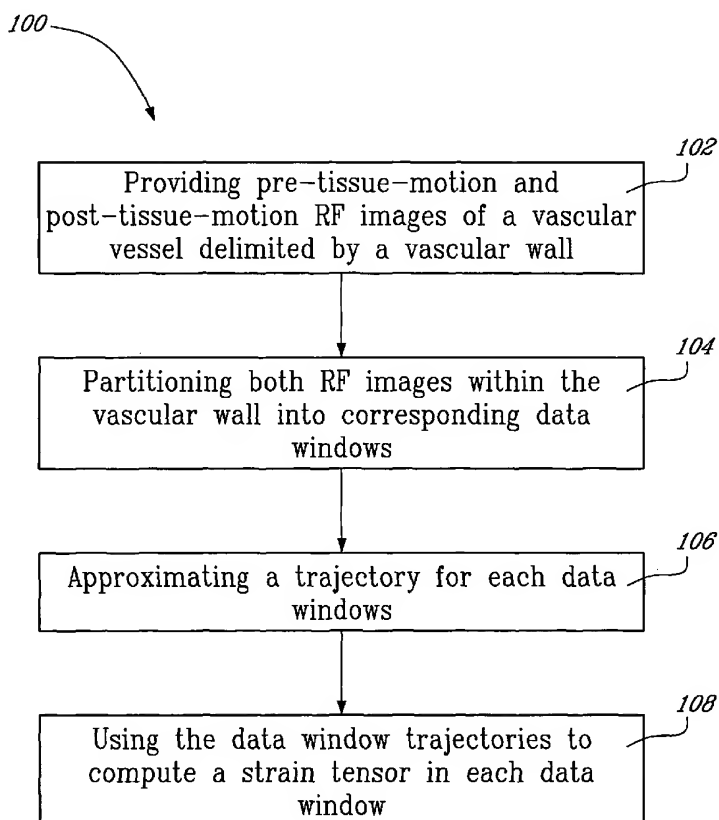
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(54) Title: METHOD AND SYSTEM FOR VASCULAR ELASTOGRAPHY



(57) Abstract: The method for vascular elastography comprises: i) obtaining a sequence of radio-frequency (RF) images including pre-tissue-motion and post-tissue-motion images in digital form of a vessel delimited by a vascular wall; the pre-tissue-motion and post-tissue-motion images being representative of first and second time-delayed configuration, of the whole vessel; ii) partitioning both the pre-tissue-motion and post-tissue-motion images within the vascular wall into corresponding data windows; approximating a trajectory between the pre- and post-tissue-motion for corresponding data windows; and using the trajectory for each data window to compute the full strain tensor in each data window, which allow determining the Von Mises coefficient. The method can be adapted for non-invasive vascular elastography (NIVE), for non-invasive vascular micro-elastography (MicroNIVE) on small vessels, and for endovascular elastography (EVE).

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